

are described in detail, for example, in United States of America patents no. <sup>5 839 571</sup>~~583 957~~ and 6 601 698. Express reference is made to these patents. In short, these junctions consist of reinforced junction elements made from rubber or synthetic materials, with a general H shape, extending around the ends of the conveyor belt, on either side of the central section of the generally H-shaped junction, one of the flanges having pre-punched holes equipped with cup inserts, and the other flange having pre-punched holes equipped with bush inserts. These holes equipped with cups are placed in staggered rows over quite a large surface in order best to distribute the traction efforts to which the flanges of the junction and the conveyor belt are subjected.

These H-shaped junctions, screwed in the perpendicular direction of the general plane of the junctions, described in United States of America patent no. 6 601 698 B2, have turned out to be excellent as far as their strength is concerned.

In addition, it is possible to remove screwed junctions of this type, which allows easy replacement of a damaged section of the conveyor belt, or to extend the length of the conveyor belt with a view to following up the progress of mining work, for example.

However, these junctions, which have solved many problems in certain industries, in particular in heavy extraction industries, for transporting coal, minerals, phosphates and other heavy loose products, still encounter, in certain cases, problems with wrenching of the flanges which, although they are bevelled in the direction of the thickness at the end that is in contact with the conveyor belt, have a thickness that sometimes catches with the scrapers with which these belts are equipped.

Finally, it is desirable to have, for example in order to replace conveyor belts of a given machine of standard model and length, for example in roadworks, earthworks, farming

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